

# ZACKARY SCALYER

205 Miller Rd APT X / Akron, PA 17501 / (717) 598-8390 / zes5027@psu.edu

## SUMMARY

Seeking employment/internship in data analysis or related field while completing the Master's in Applied Statistics Program at Villanova University. For examples of academic research please refer to my public repository <https://github.com/zack0179/ZackaryScalyer>.

## EDUCATION

The Pennsylvania State University, Berks Campus

Expected: May 2018

- Bachelor of Science in Kinesiology, Exercise Science Option
- Cumulative GPA: 3.72

Villanova University Master's in Applied Statistics

Accepted: Fall 2018

## ACADEMIC AWARDS

The Penn State Berks Excellence in Statistics Award

April 2018

Franco Undergraduate Research Award (\$1,500)

January 2017

Science Peer Tutor Award: Kinesiology

June 2017

Outstanding Science Internship/Co-op Student Award

June 2017

Science Peer Tutor Award: Mathematics

June 2016

## ACADEMIC RESEARCH EXPERIENCE

### Statistical Program Competencies

August 2016 to Present

SPSS, R, Python, MATLAB, and Minitab

- Course work in statistics for SPSS and R
  - STAT 401 - Experimental Methods
  - STAT 200 - Elementary Statistics
  - KINES 260 - Research Skills in Kinesiology
- PSU Learning Center tutor for SPSS and R
- Data cleaning and statistical modeling with R
- Data integration, processing, analyzation, and visualization with Python and MATLAB
- Inferential statistics and data visualization with Minitab and R

### Physics Department Independent Studies

August 2017 to Present

Faculty Adviser: Dr. Alexei Prokudin

- *Transverse-momentum-dependent Multiplicities of Charged Hadrons*

### PSU Berks Biomechanics Research Internship

June 2016 to Present

Faculty adviser Dr. Benjamin W. Infantolino

- *Optimal Fascicle Length Changes Based On Submaximal Force Or Activation*
- Ultrasound imaging, EMG, load cell data collection and data processing

Faculty Adviser: Dr. Allison R. Altman-Singles

- Vicon Nexus II Motion Analysis System, Bertec Force-Plate Gate Analysis

### PSU Berks Funded Engineering Research

May to August 2017

Faculty Adviser: Dr. Joseph M. Mahoney

- *Design, Calibration and Validation of an Inexpensive Balance Board for Quiet Stance Testing*
- *Validation of Simple Automated Step Counting Methods During Treadmill Walking*

### PSU Berks Chemistry Research Internship

June to August 2016

Faculty Adviser: Dr. Katie E. Amaral

- *Organic Chemistry Predicting Outcomes*

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## ACADEMIC TEACHING EXPERIENCE

### Peer Academic Leader: The Neurobiology of Motor Control

Spring 2017

Faculty adviser Dr. Benjamin W. Infantolino

- Conducted weekly review sessions helping students understand course material

### PSU Berks Math, Chemistry, and Statistics tutor

January 2016 to May 2017

- Stat 100 Student Mentor: Presented introduction to probability
- Peer Academic Leader: The Neurobiology of Motor Control and Development

### National Science Foundation (NSF) Engineering Ahead Program

July 2016, July 2017

Faculty Adviser: Dr. Ryan S. Hassler

- Program assistant, student mentor and math tutor

### STEM Conference Student Instructor

March 2016, March 2017

Faculty Adviser: Dr. Ryan S. Hassler

- Real-World Data Analysis Using R

Faculty Adviser: Dr. Benjamin W. Infantolino

- Ultrasound and muscle anatomy

## PRESENTED RESEARCH

### 41st American Society of Biomechanics Annual Conference

August 2017

- Poster presentation: Optimal Fascicle Length Changes Based On Submaximal Force Or Activation

### 18th Annual Undergraduate Research & Creativity Conference

April 2017

- Poster presentation: Organic Chemistry Predicting Outcomes

### American Chemical Society (ACS) Middle Atlantic Regional Meeting (MARM)

June 2017

- Poster presentation: Organic Chemistry Predicting Outcomes

### Biennial Conference on Chemistry Education (BCCE)

June 2016

- Podium presentation by Dr. Katie E. Amaral: Linear and Generalized Linear Modeling of Organic Chemistry II Grade

## MILITARY AWARDS & ACADEMICS

### US Marine Corps Certificate of Commendation

July 2010

- Organized, updated, and developed a referencing system for the hazardous materials accumulation point which resulted in 100 percent accountability of all hazmat aboard Camp Gonsalves, Okinawa.
- Wrote nine safety programs which resulted in zero discrepancies on both fire inspections and the Annual Installation Safety Office Inspection of Work and Living quarters.

### Corporals Leadership Course

August 2012

- 46 hours in-class instruction. Topics included: public speaking, mentoring, leadership

### Marine Corps Martial Art Black Belt Instructor

August 2012

- 158 hours of instructing, certified 39 students

## PROFESSIONAL AFFILIATIONS

2015 - Present

- American Society of Biomechanics (ASB)
- National Strength and Conditioning Association (NSCA)
- American College of Sports Medicine (ACSM)